<u>Amendments to the Claims</u>:

1. (original): A method for controlling placement of a first part on a second part comprising,

placing a printed image containing a digital watermark on at least one of said parts,

capturing a digital image of said printed image,

reading a grid signal contained in said digital watermark, and

determining the angular rotation of said part from said watermark grid signal.

2. (currently amended): The method of claim 1 including the step of reading other payload data from said watermark.

3. (currently amended): The method of claim 1 wherein said grid signal is used to determine a the location of said part.

4. (original): The method recited in claim 1 wherein said first part is an electronic component.

5. (original): The method recited in claim 1 wherein said second part is a printed circuit board.

6. (currently amended): A system for controlling a pick and placement machine which places a first part on a second part and wherein at least one of said parts includes a printed image containing a watermark, said system comprising:

means for reading data from said digital watermark from said part, and

means for determining the orientation of said part from the data read from said watermark.

7. (currently amended): The system of claim 6 including means for reading other payload data from said watermark.

8. (currently amended): The system of claim 6 wherein said grid signal is used to determine a the location of said part.

9. (currently amended): The system of claim 6 wherein said grid signal is used to determine a the distance of said part from said means for reading.

10. (original): The system of claim 6 wherein said first part is an electronic component.

11. (original): The system of claim 6 wherein said second part is a printed circuit board.

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12. (currently amended): A robot for handling items, said robot including,

a camera for acquiring an electronic image of a printed image containing a watermark,

a computer including a program for from reading a digital watermark in an electronic image acquired by said camera,

a controller for controlling said robot in response to the data acquired from said digital watermark.

13. (original): The robot recited in claim 12 including means for reading a grid signal from said digital watermark.

14. (original): The robot recited in claim 13 wherein said printed image is on an item to be handled by said robot.

15. (currently amended): The robot recited in claim 14 including means for determining a the distance from said camera to said item from said grid signal.

16. (currently amended): The robot recited in claim 14 including means for determining a the orientation of said item from said grid signal.

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17. (new): A method for controlling placement of a first part on a second part, wherein the first part includes a digital watermark redundantly provided thereon, the digital watermark including an orientation component, said method comprising:

receiving image data corresponding to at least a portion of the first part, the portion including at least one redundant instance of the digital watermark;

reading the orientation component of the digital watermark;

determining an orientation of the first part through reference to at least the orientation component of the digital watermark;

controlling placement of the first part on the second part through reference to at least the determined orientation of the first part.

18. (new): The method of claim 17, wherein the determined orientation of the first part comprises an angular rotation of the first part.

19. (new): The method of claim 17, wherein the determined orientation of the first part comprises an relative distance of the first part.

20. (new): The method of claim 17, wherein the digital watermark further comprises an identifier to identify the first part.

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21. (new): A robot for handling items, said robot comprising:

an image sensor for sensing image data of an item including a digital watermark

provided on a surface thereof, wherein the digital watermark comprises an orientation

component;

electronic processing circuitry; and

memory including instructions stored therein for execution by the electronic

processing circuitry, the instructions including instructions to:

analyze image data captured by the image sensor,

determine from analyzed image data an orientation of the item relative to

the orientation component, and

provide position information based on a determined orientation of the

item.

22. (new): The robot of claim 21, wherein the item includes redundant instances

of the digital watermark provided on the surface.

23. (new): The robot of claim 21, wherein the position information comprises at

least one of an angular rotation and relative distance.

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